

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF SOUTHERN MASON	)	
WATER DISTRICT FOR A RATE ADJUSTMENT	)	CASE NO.
PURSUANT TO THE ALTERNATIVE RATE FILING	)	2002-00271
PROCEDURE FOR SMALL UTILITIES	)	

ORDER

On July 8, 2002, Southern Mason Water District ( Southern Mason ) filed its application for Commission approval of its proposed water rates. Commission Staff, having performed a limited financial review of Southern Mason's operations, has prepared the attached Staff Report containing Staff's findings and recommendations regarding the proposed rates. All parties should review the report carefully and provide any written comments or requests for a hearing or informal conference no later than 10 days from the date of this Order.

IT IS THEREFORE ORDERED that all parties shall have no more than 10 days from the date of this Order to provide written comments regarding the attached Staff Report or requests for hearing or informal conference. If no request for a hearing or informal conference is received, this case will be submitted to the Commission for a decision.

Done at Frankfort, Kentucky, this 4<sup>th</sup> day of September, 2002.

By the Commission

ATTEST:

  
Executive Director

STAFF REPORT  
ON  
SOUTHERN MASON WATER DISTRICT  
CASE NO. 2002-00271

Pursuant to a request by Southern Mason Water District ( Southern Mason ) for assistance with the preparation of a rate application for its water operations, Commission Staff ( Staff ) performed a limited financial review of Southern Mason's test year operations for the calendar year ending December 31, 2001. The scope of Staff's review was limited to obtaining information as to whether the test period operating revenues and expenses were representative of normal operations. Insignificant or immaterial discrepancies were not pursued and are not addressed herein.

Upon completion of the review, Staff assisted Southern Mason in the development and preparation of a rate application. The application included an adjusted pro forma operating income statement wherein adjustments were made to test year operating revenues and expenses that were known and measurable and deemed to be reasonable. The rates proposed by Southern Mason were based on the pro forma income statement as shown in the application. The application also includes the calculation of Southern Mason's revenue requirement using a 1.2 debt service coverage, which is frequently used by the Commission to determine revenue requirements for small water utilities. To generate the revenue requirement of \$269,006, Southern Mason is proposing to increase its annual revenue from water rates by \$30,128, an increase of 12.6% over normalized revenue from water rates of \$238,878.

On July 8, 2002, Southern Mason filed its rate application to the Commission for consideration. Subsequently, Southern Mason informed Commission Staff about three changes to its expenses that will affect its operations. The cumulative effect of these three changes results in a slight reduction of \$4,585 in Southern Mason's originally-proposed revenue requirement of \$269,006, reducing it to \$264,421. This reduces the required revenue increase to \$25,543, a 10.7 percent increase over normalized revenues.

The first change is that Southern Mason's primary water supplier, the City of Maysville, has agreed to reduce Southern Mason's purchased water costs through a billing credit of 10%. The application reflects pro forma purchased water expense of \$93,197, and a 10% reduction would decrease this expense by \$9,320, resulting in revised pro forma purchased water expense of \$83,877.

The second change is that Southern Mason, which has historically operated from the residence of its manager, rented office space in Mays Lick, Kentucky for its business operations starting in July of 2002. The rental charge for this office space is \$200 per month, or \$2,400 per year. Commission Staff believes this expense is reasonable and recommends that it be included in Southern Mason's pro forma expenses.

The third change is that Southern Mason's annual insurance expenses have increased effective August 1, 2002. Southern Mason provided documentation to indicate that the new annual premium is \$4,863, which is \$2,335 more than the pro forma insurance expense included in Southern Mason's application.

Except for the three changes noted above, and their resulting effect on Southern Mason's revenue requirement and rates, Staff is hereby adopting the contents of Southern Mason's application as its recommendation in this report as if fully set out herein. Eddie Beavers is responsible for all revenue adjustments and the calculation of the proposed rates as detailed in Attachment B of this report. Jack Kaninberg is responsible for the determination of the revenue requirement. Based on the information included in Southern Mason's application, and the three changes noted herein, Staff is of the opinion that the rates as shown in Attachment A of this report are reasonable and should be approved by this Commission.

#### Signatures

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Prepared by: Jack Kaninberg  
Financial Analyst, Water and Sewer  
Revenue Requirements Branch  
Division of Financial Analysis

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Prepared by: Eddie Beavers  
Rate Analyst, Communications, Water,  
and Sewer Rate Design Branch  
Division of Financial Analysis

ATTACHMENT A  
STAFF REPORT CASE NO. 2002-00271  
STAFF S RECOMMENDED RATES

Monthly Water Rates

First 1,000 gallons	\$11.69 Minimum Bill
Next 4,000 gallons	\$5.47 per 1,000 gallons
Next 5,000 gallons	\$4.73 per 1,000 gallons
Over 10,000 gallons	\$4.03 per 1,000 gallons
Leak Adjustment	\$2.15 per 1,000 gallons

Attachment B  
Staff Report Case No. 2002-00271  
Cost of Service Discussion

In seeking to establish fair, just and reasonable rates for a water utility, a sound analysis must be performed that reflects the actual cost of providing water service to each customer classification. That analysis must allocate the costs of providing water service among the customer classes commensurate with their service requirements so that the differences in costs of providing services to different types of customers is recognized. Therefore, to develop a proper rate schedule for Southern Mason Water District, Commission Staff prepared a cost of service study based on the commodity demand methodology as set out in the America Water Works Association ( AWWA ) Manual M-1. This study recognizes that a utility must be prepared for meeting peak demand requirements as well as the average water use needs. In other words, a system must be sized to meet the demand of most small usage customers that use very little water throughout the day, but place a tremendous burden on the system at the peak times such as mornings and evenings. Most large-usage customers place a more consistent demand on the system by using a constant rate of water throughout the day and night. Therefore, those customers do not contribute to a system s strain to meet peak demands.

Retail Rates: The total revenue required from rates is determined to be \$264,421, the next step is to develop rates that will collect this amount from the district s retail customers. The utility s expenses are analyzed and allocated according to three different classifications: Commodity, Demand and Customer.

Commodity costs are those directly associated with the cost of water. The major expenses in this classification is cost of purchased water and the cost of power for pumping.

Demand costs are those associated with providing the facilities to meet the peak demands placed on the system. Costs consist of the salaries and other expenses associated with monitoring and maintaining these facilities.

Customer costs are those incurred to serve customers without regard to varying usage. These costs include the salaries and expenses associated with meter reading, billing, collections, accounting expenses and the costs associated with service lines and meters.

Sheet 3 of the following cost of service study shows the allocation of expenses to the functional cost components, Commission Staff utilized information obtained through the utility's application and field reviews to allocate these costs. Administrative and general expenses are allocated to the cost components based on the subtotal of all other expenses, excluding commodity costs. The allocation process results in \$86,193 in commodity costs, \$71,688 in demand costs and \$34,842 in customer costs.

Sheet 5 of the attached Cost of Service Study shows the calculation of the company's retail water rates. Total commodity costs are allocated across the rate steps in accordance with usage percentages. Total demand costs are allocated across the rate steps in accordance with usage that has been adjusted to reflect the higher peak demands that are caused in the lower rate steps. Total customer costs are all collected in the first rate step, or minimum bill, since those costs do not differ with varying usage.

The total for the first rate step is \$78,072 which is divided by the number of bills issued on an annual bases which calculates to a minimum bill of \$11.69 for the first 1,000 gallons. The totals for the remaining rate steps are each divided by the actual water usage for each rate step to calculate the remainder of the rates.

The full cost of service study for Southern Mason County Water District follows.

# **Southern Mason County Water District**

## **Cost of Service Study**

### **Allocation of Plant Value Sheet 1**

Allocation of Depreciation	Sheet 2
Allocation of O/M Expenses	Sheet 3
Allocation of Cost of Service	Sheet 4
Calculation of Water Rates	Sheet 5
Verification of Rates	Sheet 6
Proposed Rates	Sheet 7
Comparison of Rates	Sheet 8

Allocation of Plant Value				
Southern Mason County Water District				
	<b>Total</b>	<b>Commodity</b>	<b>Demand</b>	<b>Customer</b>
Organization	\$4,726			\$4,726
Land & Land Rights	6,250		\$6,250	
Reservoirs	281,698		281,698	
Trasmission & Distribution Mains	883,614		883,614	
Meters & Meter Installation	84,220			84,220
Water Treatment Equipment	5,801		5,801	
Services	5,066			5,066
Hydrants	1,665			1,665
<b>Subtotal</b>	<b>\$1,273,040</b>		<b>\$1,177,363</b>	<b>\$95,677</b>
Allocation Percentages	100%		92.5%	7.5%
Other Plant & Misc. Equipment	\$5,356		\$4,954	\$402
Other Tangible Plant	2,756		2,549	207
Tool Shop & Garage	1,336		1,236	100
<b>Subtotal</b>	<b>\$9,448</b>		<b>\$8,739</b>	<b>\$709</b>
<b>Total</b>	<b>\$1,282,488</b>		<b>\$1,186,102</b>	<b>\$96,386</b>
Percentages	100%		92.5%	7.5%
<b>Allocation Percentages</b>	<b>100%</b>		<b>92.5%</b>	<b>7.5%</b>

Source: PSC Annual Report 2001

Allocation of Depreciation				
Southern Mason County Water District				
	<b>Total</b>	<b>Commodity</b>	<b>Demand</b>	<b>Customer</b>
Land and Land Rights	\$1,727		\$1,727	
Structures & Improvements	5,345		5,345	
Pumping Equipment	3,537		3,537	
Dist. Reservoirs & Standpipes	90,589		90,589	
Trasmission & Distribution Mains	318,030		318,030	
Meters	29,651			\$29,651
Hydrants	1,389			1,389
Services	4,216			4,216
<b>Subtotal</b>	<b>\$454,484</b>		<b>\$419,228</b>	<b>\$35,256</b>
Allocation Percentages	100%		92.2%	7.8%
Office Furniture & Equipment	\$5,254		\$4,844	\$410
Other Tangible Plant	2,756		2,541	215
Tools, Shop & Garage Equip	790		728	62
Subtotal	\$8,800		\$8,113	\$687
<b>Total</b>	<b>\$463,284</b>		<b>\$427,341</b>	<b>\$35,943</b>
Percentages	100%		92.2%	7.8%
Source: PSC Annual Report 2001				

Allocation of Operation & Maintenance Expense				
Southern Mason County Water District				
	<b>Total</b>	<b>Commodity</b>	<b>Demand</b>	<b>Customer</b>
Salary Maintenance	\$28,692		\$28,692	
Salary -Office Clerk	8,400			\$8,400
Contractual Services Meter	4,525			4,525
Cont Servs-Backhoe/Labor-Line	9,162		\$9,162	
Cont Serv-Backhoe/Labor-Meters	4,513			\$4,513
Purchased Water	83,877	\$83,877		
Purchased Power	2,316	\$2,316		
Transport-Maintenance/Routine Line	5,572		\$5,572	
Transport-Meter Check/Collection	2,388			\$2,388
Materials & Supplies-Meters	1,044			\$1,044
Materials & Supplies-Leak Repairs	3,130		\$3,130	
Bad Debt Expense	1,595			\$1,595
Subtotal	\$155,214	\$86,193	\$46,556	\$22,465
Less Commodity	(\$86,193)			
Total	\$69,021		\$46,556	\$22,465
Allocation Percentages	100%		67%	33%
Salaries & Wages-Admin	\$1,748		\$1,171	\$577
Salaries & Wages-Officers	\$4,200		2,814	1,386
Pension & Benefits	\$9,025		6,047	2,978
Insurance-Property	\$1,147		768	379
Insurance-Liability	\$2,200		1,474	726
Insurance-Workers Comp	\$1,516		1,016	500
Contractual Services-Accounting	\$3,413		2,287	1,126
Rent	\$3,964		2,656	1,308
Reg Com Expense	\$452		303	149
Payroll Taxes	\$3,292		2,206	1,086
Miscellaneous Expense	\$6,552		4,390	2,162
Subtotal	\$37,509		\$25,132	\$12,377
<b>Operating Expenses</b>	<b>\$192,723</b>	<b>\$86,193</b>	<b>\$71,688</b>	<b>\$34,842</b>

Source: Field Review 2002

Allocation of Cost of Service				
Southern Mason County Water District				
	<b>Total</b>	<b>Commodity</b>	<b>Demand</b>	<b>Customer</b>
Operation & Maintenance	\$192,723	\$86,193	\$71,688	\$34,842
Debt Service <sup>1</sup>	38,440		35,557	2,883
Depreciation <sup>2</sup>	33,258		30,664	2,594
<b>Revenue Required from Rates</b>	<b>\$264,421</b>	<b>\$86,193</b>	<b>\$137,909</b>	<b>\$40,319</b>

NOTES:

1. Debt Service has been allocated on a percentage of Plant Value from Sheet 1.
2. Depreciation has been allocated on a percentage of Depreciation from Sheet 2.

Calculation of Water Rates					
Southern Mason County Water District					
	<b>Total</b>	<b>First 1,000 gallons</b>	<b>Next 4,000 gallons</b>	<b>Next 5,000 gallons</b>	<b>Over 10,000 gallons</b>
Actual Water Sales:					
Thousand Gallons	45,594,000	6,119,000	15,619,000	6,940,000	16,916,000
Percent	100%	13.4%	34.3%	15.2%	37.1%
Weighted Sales for Demand:					
Thousand Gallons	64,467,930	12,238,000	26,083,730	9,230,200	16,916,000
Percent	100%	19.0%	40.5%	14.3%	26.2%
Allocation of Volumetric Costs:					
Commodity	\$86,193	\$11,550	\$29,564	\$13,101	\$31,978
Demand	137,909	26,203	55,853	19,721	36,132
Customer	40,319	40,319			
Total	\$264,421	\$78,072	\$85,417	\$32,822	\$68,110
Number of Bills	6,681				
<b>Proposed Rates</b>		<b>\$11.69</b>	<b>\$5.47</b>	<b>\$4.73</b>	<b>\$4.03</b>

Verification of Rates				
Southern Mason County Water District				
	<b>Bills</b>	<b>Gallons</b>	<b>Rate</b>	<b>Revenue</b>
First 1,000 gallons	6,681	6,119,000	\$11.69	\$78,101
Next 4,000 gallons		15,619,000	5.47	85,436
Next 5,000 gallons		6,940,000	4.73	32,826
Over 10,000 gallons		16,916,000	4.03	68,171
Total Revenue from Rates				\$264,534
<b>Total Operating Revenue</b>	<b>6,681</b>	<b>45,594,000</b>		<b>\$264,534</b>

Southern Mason County Water District				
Proposed Monthly Water Rates				
First 1,000 gallons		\$11.69	Minimum bill	
Next 4,000 gallons		5.47	per 1,000 gallons	
Next 5,000 gallons		4.73	per 1,000 gallons	
Over 10,000 gallons		4.03	per 1,000 gallons	
Leak Adjustment		\$2.15	per 1,000 gallons	

Comparison of Rates				
Southern Mason County Water District				
Gallon Usage	Current Rates	Cost of Service Rates	Increase	Percentage
1,000	\$10.67	\$11.69	\$1.02	9.6%
2,000	15.48	17.16	1.68	10.9%
3,000	20.29	22.63	2.34	11.5%
4,000	25.10	28.10	3.00	12.0%
5,000	29.91	33.57	3.66	12.2%
6,000	33.86	38.30	4.44	13.1%
7,000	37.81	43.03	5.22	13.8%
8,000	41.76	47.76	6.00	14.4%
9,000	45.71	52.49	6.78	14.8%
10,000	49.66	57.22	7.56	15.2%
15,000	67.26	77.37	10.11	15.0%
20,000	84.86	97.52	12.66	14.9%
25,000	102.46	117.67	15.21	14.8%
30,000	120.06	137.82	17.76	14.8%
35,000	137.66	157.97	20.31	14.8%
40,000	155.26	178.12	22.86	14.7%
50,000	190.46	218.42	27.96	14.7%
75,000	278.46	319.17	40.71	14.6%
100,000	366.46	419.92	53.46	14.6%
150,000	\$542.46	\$621.42	78.96	14.6%
200,000	\$718.46	\$822.92	104.46	14.5%
250,000	\$894.46	\$1,024.42	129.96	14.5%
300,000	\$1,070.46	\$1,225.92	155.46	14.5%
350,000	\$1,246.46	\$1,427.42	180.96	14.5%

Comparison of Rates			
Block Usage	Current Rates	Proposed rates	
First 1,000 gallons	\$10.67	\$11.69	
Next 4,000 gallons	4.81	5.47	
Next 5,000 gallons	3.95	4.73	
Over 10,000 gallons	3.52	4.03	
Effect on Customer Average Bill - 5,000 Gallons Usage			
Current Rates	Proposed Rates	Amount Increase	% Increase
\$29.91	\$33.57	\$3.66	12.20%